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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,182	12/03/2001	Helge Lindstrom	2835-0129P	7662

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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 08/27/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,182

Applicant(s)

LINDSTROM ET AL.

Examiner

Alicia Chevalier

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

RESPONSE TO AMENDMENT

WITHDRAWN REJECTIONS

1. The objections to the Specification and the 35 U.S.C. §112 rejection of record in paper #7, pages 2-3, paragraphs 1 and 2 have been withdrawn due to Applicant's amendment in paper #9.
2. The 35 U.S.C. §102 and §103 rejections of record in paper #7, pages 3-6, paragraphs 3-6 have been withdrawn due to Applicant's amendment in paper #9.

NEW REJECTIONS

3. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Claim Rejections - 35 USC § 112

4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 now recites "a pressure pipe having a pressure category of PN 16 or greater according to ISO Standard 4065." The specification on page 5, lines 8-11 recites "pressure pipes are classified into different pressure categories according to standard SFS 3145 which corresponds to ISO 4065 (1978), and when present-day manufacturing techniques are used, the pressure categories of pressure pipes PN are in general 6, 8 and 10." It is unclear exactly what

Art Unit: 1772

the pressure category PN represents with respect to the pipe other than it is something measured by the ISO standard 4065. Levivier et al. (6,076,864) discloses that type PN16 is a nominal pressure of 16 bars (col. 6, lines 7-8). Also, according to International Organization for Standardization website (see attachment) the current ISO 4065 is from 1996 and describes the relationship between the nominal wall thickness and the nominal outside diameter of the thermoplastic pipes. Furthermore, it is unclear how ISO 4065 (1978) relates to the available ISO 4065:1996.

For purposes of examination it is the examiner's understanding that the limitation "pressure category of PN 16 or greater according to ISO Standard 4065," is directed to the relationship between the wall thickness and the diameter to have a nominal pressure of 16 bars.

Claim Rejections - 35 USC § 103

5. Claims 1, 4 and 8-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (5,236,018).

Kobayashi discloses a fiber-reinforced plastic pipe comprising a multiple layers of fiber-reinforced plastic covering layers (col. 4, lines 18-31). Each layer comprises a matrix material such as polypropylene with reinforcing fibers such as carbon, glass, or aramid fibers (col. 5, line 48 to col. 6, line 14). Figure 12 shows an embodiment with six layers of fiber-reinforced plastic covering layers with fiber orientations of 90°, 0°, 45°, cross-oriented, 90°, and cross-oriented. Kobayashi also discloses that the 90° orientated fiber layer between the cross-oriented layers is not always necessary (col. 8, lines 66-68), thus producing two successive layers of cross-oriented fiber layers.

The exact pressure category is deemed to be a cause effective variable with regard to the nominal pressure of the pipe. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as pressure category through routine experimentation in the absence of a showing of criticality in the claimed combined thickness. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). It would have been obvious to one of ordinary skill in the art at the time of the invention of optimize the pressure category of the pipe in order for the pipe to be able to handle higher pressures.

The exact angle of the reinforcement fibers is deemed to be a cause effective variable. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as angle of the reinforcement fibers through routine experimentation in the absence of a showing of criticality in the claimed combined thickness. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). This burden is NOT

Art Unit: 1772

discharged solely because the product was derived from a process not known to the prior art. *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation formed by using as the extruder a cone extruder is a method of production and therefore does not determine the patentability of the product itself.

6. Claims 2 and 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (5,236,018) in view of Tokui et al. (5,842,505).

Kobayashi discloses all the limitations of the instant claimed invention except for the melt flow rate of the polyolefin resin.

Tokui discloses a multi-layer pipe comprising fiber reinforced polyolefin. The polyolefin resin should preferably have a melt flow rate (MFR) of about 0.01 to 50 g/10 min. A melt flow rate of about 0.05 to 20 g/10 min. is more preferred when ease of injection or extrusion molding and mechanical properties are considered. See column 2, lines 56-60.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a polyolefin with a melt flow rate of 0.05 to 20 g/10 min., since it have been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. One of ordinary

Art Unit: 1772

skill in the art would have been motivated by to use a polyolefin with this melt flow rate depending on the mechanical properties desired and method of production.

7. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (5,236,018) in view of Vegt (DE 25 51 525).

Kobayashi discloses all the limitations of the instant claimed invention except for the length and amount of weight percent of the reinforcement fibers, and the diameter of the fibers.

Vegt discloses a fiber reinforced pipe comprising a matrix material such as polypropylene with glass reinforcing fibers (page 4, paragraph 4 to page 5, paragraph 1). The reinforced fibers ranging in the length of 0.2-5 mm and comprising 5-45% volume of the wall.

The exact length and diameter of the fiber is deemed to be a cause effective variable. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as length and diameter of the fiber through routine experimentation in the absence of a showing of criticality in the claimed combined thickness. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

It would have been obvious to one of ordinary skill in the art at the time the invention to use the reinforcement fibers of Vegt as the reinforcement fibers of Kobayashi because of the improved reinforcement properties of Vegt's fibers.

ANSWERS TO APPLICANT'S ARGUMENTS

8. Applicant's arguments regarding the 35 U.S.C. §112, §102 and §103 rejections of record have been considered but are moot due to the new grounds of rejection.

Art Unit: 1772

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

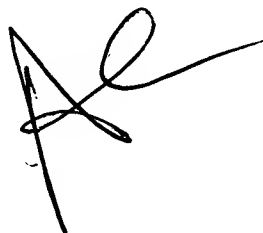
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (703) 305-1139. The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:00 p.m. The Examiner can also be reached on alternate Fridays

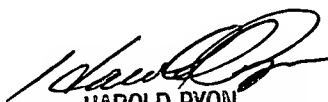
If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Harold Pyon can be reached by dialing (703) 308-4251. The fax phone number for the organization official non-final papers is (703) 872-9306. The fax number for after final papers is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose phone number is (703) 308-0661.


ac

8/20/03




HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

8/20/03



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ISO 4065:1996

Thermoplastics pipes -- Universal wall thickness table

Edition:	2 (Monolingual)
Number of pages:	8
Technical committee / subcommittee:	TC 138
ICS:	23.040.20
Stage:	90.93
Stage date:	2001-11-06

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ISO 4065:1996 PDF version (en)	CHF 52,00	1812 KB
ISO 4065:1996 PDF version (fr)	CHF 52,00	1923 KB
ISO 4065:1996 paper version (en)	CHF 52,00	
ISO 4065:1996 paper version (fr)	CHF 52,00	

Abstract

Describes the relationship between the nominal wall thickness and the no outside diameter of thermoplastics pipes. Applicable to smooth thermopl of constant circular cross-section along the whole length of the pipe.